

Amendment and Response

Applicant: Daniel J. Zillig

Serial No.: 10/622,973

Filed: July 18, 2003

Docket No.: M120.143.101 (58067US002)

Title: CLEANING WIPE AND METHOD OF MANUFACTURE

REMARKS

The following remarks are made in response to the Final Office Action mailed November 8, 2005. In that Office Action, the Examiner rejected claims 48 and 50 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 1-34, 47, and 48 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tanaka et al., EP 0822093 ("Tanaka") in view of Lerner et al., U.S. Patent No. 5,198,292 ("Lerner"). Claims 35, 36, and 49-52 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tanaka in view of Lerner as applied to claim 1 above, and further in view of Truong et al., EP 1238621 ("Truong").

With this Amendment, claim 48 has been cancelled. Claims 1-36, 47, and 49-52 remain pending in the application and are presented for reconsideration and allowance.

35 U.S.C. §112 Rejections

Claim 50 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. In particular, the Examiner found it to be unclear what is meant by "contacts the working surface." The Final Office Action stated that the Examiner's interpretation is "that the 'working surface' is the surface to be cleaned, not part of the claimed invention." It is respectfully requested that the Examiner's interpretation is incorrect as it fails to consider the claimed features as described in independent claim 1 from which claim 50 depends.

More specifically, independent claim 1 recites a cleaning wipe including "a fiber web defining opposing faces. . . wherein at least one of the opposing faces serves as a working surface for the cleaning wipe." As such, the fiber web itself (not the surface to be cleaned) includes the face(s) that define the working surface. Since the working surface is defined by the fiber web, the working surface is included in the actual invention (namely the fiber web) and does not refer to a surface to be cleaned or other intended use of the invention. This specification of the current application further supports this interpretation as described, for example, on page 9, l. 13-17 and 26-28,

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which describes the cleaning wipe as having a working surface that is slide across a surface to be cleansed during a cleaning operation. As such, it is clear that "a portion of the individually coated fibers contacts the working surface" refers to the coated fibers extending to contact the working surface of the cleaning wipe not of a surface to be cleaned as averred by the Examiner in the Final Office Action. Therefore, the rejection of claim 50 under 35 U.S.C. §112, second paragraph, is respectfully requested to be withdrawn.

35 U.S.C. §103 Rejections**Independent Claim 1**

Claim 1 was rejected under 35 U.S.C. §103(a) as being unpatentable over Tanaka in view of Lerner. Independent claim 1 recites a cleaning wipe including a fiber web that defines opposing faces and an intermediate region between the opposing faces. At least one of the opposing faces serves as a working surface for the cleaning wipe and a tacky material is impregnated into the fiber web whereby a level of the tacky material is greater in the intermediate region than at the working surface. These features are not taught or suggested by the cited references.

As admitted by the Examiner (Final Office Action, p. 4, ¶ 4e), Tanaka fails to teach or suggest the claim 1 feature of tacky material being impregnated into the fiber web. The Office Action purports to cure this deficiency by referencing Lerner. It is respectfully submitted, however, that a requisite suggestion to combine Tanaka with Lerner does not exist. In particular, Tanaka teaches a pressure-sensitive cleaning sheet having a substrate 1, a pressure sensitive adhesive (PSA) 2 layered on one side of the substrate 1, and a porous screen 3 layered on the PSA 2 opposite the substrate 1. During periods of non-use and no pressure, the screen 3 discretely extends or projects from the surface of the PSA 2 opposite the substrate 1. During use, the screen 3 is placed in contact with a member to be cleaned. A sufficient contact pressure is applied to deform the cleaning sheet to expose the PSA 2 to the member through the openings in the screen 3. The PSA 2 contacts and maintains particles from the member (col. 5, l. 29-41). Following member cleaning, the pressure is removed and the cleaning

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sheet recovers from the deformation returning to its original configuration (col. 6, l. 29-37).

The Lerner cloth 10 includes hydro-entangled fibers 11 coated with a PSA 14 in an amount configured to provide a tack cloth 10 that is "neither too 'sticky' nor too 'slippery'." (col. 5, l. 38-54). The level of adhesiveness or "stickiness" of the Lerner cloth 10 is limited to prevent the Lerner cloth 10 from sticking to a member being cleaned or to the user (see col. 3, l. 38-42; col. 5, l. 47-55).

With the above goals of Tanaka and Lerner in mind, a suggestion to replace the substrate 1 and PSA 2 of Tanaka with the Lerner cloth 10 as described by the Examiner does not exist. In fact, the references teach away from such modification as it would likely destroy or at least greatly diminish the desired function and purpose of Tanaka. More specifically, the Lerner cloth 10 is not configured with the necessary deformability required to replace the PSA 2 and substrate 1 of Tanaka. As described above, the substrate 1 and PSA 2 of Tanaka must deform under pressure to move through the openings of the porous screen 3 to contact the surface to be cleaned during use. The Lerner cloth 10 is not configured to deform in this manner and, therefore, would not move through the openings of the porous screen 3 to contact a surface being cleaned. Consequently, the Lerner cloth 10 would not collect and maintain unwanted particles from the surface thereby destroying the functionality or goal of the resultant cleaning sheet as required by Tanaka.

Even if, for argumentative purposes, the Lerner cloth 10 were configured to deform through the openings of the porous screen 3 of Tanaka during use, the resulting cleaning sheet would not have the desired adhesive levels to capture particles from the member being cleaned. More particularly, the adhesive levels of Lerner are specifically limited, as compared to the Tanaka PSA 2, to produce a less sticky Lerner cloth 10 that still maintains particles (col. 3, l. 38-42; col. 5, l. 47-55). Therefore, placing the Lerner cloth 10 beneath the porous screen 3 of Tanaka would further limit the surface area of adhesive contacting the surface to be cleaned, thereby further limiting the adhesiveness of the resultant cleaning sheet. The limited adhesion would provide a non- or less

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effective resultant cloth for adhering to and maintaining particles. This lack of adhesion would further render the resulting cleaning sheet unsatisfactory for its intended purpose.

In view of the above, the rational for the proposed combination recited by the Examiner to create a high surface area and volume to acquire particles (Final Office Action, p. 5, ¶ 4h) is in direct contrast to the actual result of the combination, namely, a smaller amount (if any) of adhesive actually contacting the surface to be cleaned, resulting in a less effective or even non-functional cleaning sheet as described above. As such, it is respectfully submitted that the stated motivation is not valid. Further, since the resultant cloth would at best be less effective and harder to use than either of the Lerner cloth or the sheet of Tanaka, there is no desire and, therefore, no motivation to combine the two references. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990); MPEP 2143.01 III). Other combinations of Tanaka and Lerner to impregnate the porous sheet 2 with adhesive are also not suggested, since Tanaka teaches against such a modification as described in the Amendment and Response to the Non-Final Office Action filed August 22, 2005. Since there is no motivation to combine the cited references to embody the limitations of claim 1, claim 1 is not obvious over the cited references. Therefore, for at least the above described reasons, the cited references fail to teach or otherwise suggest a cleaning wipe having the features recited in independent claim 1. Consequently, independent claim 1 is believed to be allowable, and withdrawal of the associated rejections is respectfully requested.

Dependent claims 2-24, 47, 49, and 50

Dependent claims 2-24 and 47, which were also rejected under 35 U.S.C. §103(a) as being unpatentable over Tanaka in view of Lerner, each depend from independent claim 1. As described above, independent claim 1 is believed to be allowable over the cited references. Therefore, dependent claims 2-24 and 47 are also believed to be allowable over the cited references. Accordingly, the withdrawal of the

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rejections of claims 2-24 and 47 is respectfully requested. In addition, dependent claims 2-24 and 47 each present additional, patentably distinct subject matter.

For example, dependent claim 5 recites the fiber web including "at least one fiber defining first and second sections and positioned such that the first section is proximate the central region and the second section is proximate the working surface, and further wherein a coating thickness of the tacky material at the first section is greater than a coating thickness of the tacky material at the second section." The cited references fail to teach individual fibers of the fiber web being coated with varying amounts of tacky material at different sections of the individual fiber. More specifically, as described above Tanaka teaches the PSA being applied in a strip and not being impregnated into the porous screen, and Lerner teaches continuous and even impregnation of the PSA throughout the entire cleaning wipe (Abstract and col. 8, l. 35-38). In fact, the impregnating process of Lerner using capillary action to draw an adhesive through a wet entanglement of fibers would not likely be conducive to coating individual fiber sections with different amounts of adhesive as recited in claim 5. If combined in the manner asserted by the Examiner, each of the "fibers" associated with the Tanaka screen 3 would have no tacky material coated thereon, whereas the fibers 11 of the Lerner cloth 10 would have a uniform tacky material coating thickness. Therefore, the limitations of claim 5 are not taught or otherwise suggested by the cited references.

Dependent claim 6 recites each of the fibers being coated with the tacky material such that a coated volume of the tacky material at a first section of each fiber is greater than a coated volume at the second section. Since claim 6 once again refers to an individual fiber having different coating volumes at different sections, claim 6 is not taught or otherwise suggested by the cited references for similar reasons as described above with respect to claim 5.

Dependent claim 10 refers to the web thickness extending between the opposing faces of the cleaning wipe and a tacky material gradient across the web thickness. Claim 10 further recites the tacky material gradient being "characterized by a progressive reduction in quantity of tacky material from the center to the opposing surfaces." The cited references fail to teach such a tacky material gradient. Rather,

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since the Lerner cloth 10 includes a consistent level of PSA 14 throughout and the porous screen 3 of Tanaka does not include any PSA, the reduction in quantity of tacky material from the center to an opposing face of the resulting sheet is abrupt and discrete between the Lerner cloth 10 and the porous screen 3. This abrupt change is in direct contrast to the progressive reduction in quantity of tacky material as recited in claim 10. Therefore, the cited reference fail to teach the limitations recited in claim 10.

For the above-described reasons, at least each of dependent claims 5, 6, and 10 provide limitations that further support the allowance of claims 5, 6, and 10 in addition to the reasons described above with respect to claim 1.

Dependent claims 49 and 50 were rejected under 35 U.S.C. §103(a) over Tanaka in view of Lerner, and further in view of Truong. Claim 49 and 50 each depend from independent claim 1, which as described above is not taught or otherwise suggested by Tanaka in view of Lerner. The addition of Truong fails to alter this analysis. In particular, claim 49 recites the intermediate region including three portions each defining approximately one-third of a thickness of the fiber web, and further wherein each portion includes one or more of the individually coated fibers. The individually coated fibers are defined by the fiber web and are coated with the tacky material. None of the cited references teach or otherwise suggest these recited features. As described above with respect to claims 1 and 10, the sheet resulting from the Examiner's suggestion combination of Tanaka and Lerner teaches a discrete and abrupt change in adhesive levels from portion to portion of the cleaning sheet, namely from the Lerner cloth 10 to the Tanaka porous screen 3. The porous screen 3 does not include any individually coated fibers. Rather, only one portion, the Lerner cloth 10 portion, of the resultant cleaning sheet includes a tacky material. Therefore, the cited references fail to teach or otherwise suggest the three portions of the fiber web each including one or more of the individually coated fibers as recited claim 49.

Truong fails to alter the analysis as Truong discloses that the cleaning pad may, although not preferably, be made of three or more layers where any layers between the first and second cleaning web materials provide additional stiffness or water absorbency (paragraph 0029). The layers or pads of Truong may be adhered together, but no

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adhesive extends into any pad or layer. As such, there is no teaching or suggestion in Troung to include and fibers impregnated with a tacky material in each of three layers as recited in claim 49.

Moreover, nothing in Troung teaches or otherwise suggests that each portion or layer of Troung should be equally thick as averred by the Examiner (Final Office action, p. 6-7, ¶ 5c). Each portion of the cleaning pad disclosed in Troung functions in differing manners (paragraph 0029). As such, a thickness of each material would effect the cleaning ability of each material differently and nothing is disclosed regarding a desire for each layer to have an equal cleaning ability. In fact, Troung conversely states that desirably the first and second cleaning materials are different and are for different cleaning purposes (paragraph 0030) not for equal cleaning abilities. Accordingly, the statement by the Examiner that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the three-layered article of Troung et al. with three equally thick layers motivated by the desire for the all [sic] facets of the cleaning web to have equal cleaning ability" is unsubstantiated as no such desire exists in the prior art. For at least the above-described reasons, dependent claim 49 is believed to be allowable over the cited references. Therefore, withdrawal of the associated rejection is respectfully requested.

Claim 50 depends from independent claim 1, which as described above is not taught or otherwise suggested by Tanaka in view of Lerner. Therefore, claim 50 also is not taught or otherwise suggested by Tanaka in view of Lerner for similar reasons as described above. Further, even if Tanaka and Lerner were combined as described by the Examiner, due to the teaches of Tanaka against the PSA 2 protruding beyond the surface of the porous screen (col. 3, l. 9-12; col. 4, l. 41-46; and col. 5, l. 15-28), the Lerner cloth 10 would also not extend beyond the surface of the porous screen. Accordingly, the Lerner cloth 10 would not contact the working surface on the opposing side of the porous screen unless deformed under pressure during use. Since the claim relates to the structure of the cleaning wipe alone, it is described without overwhelming outside forces acting upon it. Since the Lerner cloth 10 does not contact the outer surface of the porous screen when depressurized, the cited references fail to teach the

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limitations recited in claim 50. Troung does not alter the above analysis. Therefore, claim 50 is not taught or otherwise suggested by the cited references. Accordingly, the Applicant respectfully requests that the associated rejection of claim 50 be withdrawn.

Claims 25-36, 51, and 52

Claims 25-34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tanaka in view of Lerner. Claim 25 recites a cleaning wipe comprising a fiber web defining a working surface and "a tacky material impregnated into the fiber web at a level of greater than 10 g/m²; wherein the working surface exhibits a Drag Value of not more than 5 pounds." The cited references fail to teach or otherwise suggest such features.

Although the Examiner's calculations on page 3 of the Final Office Action indicated that Tanaka discloses an example wherein the PSA is provided at 26.0 g/m² in a cleaning sheet, as the calculations themselves state, that measurement is based upon a solid layer of the PSA having a thickness of 30 microns not a level of impregnation as recited in claim 25. However, once Tanaka is combined with Lerner as describe by the Examiner above, no solid layer of PSA will be applied and the amount of PSA will be decreased drastically in view of the Lerner cloth 10 (see Lerner, col. 3, l. 61-64). In fact, since in the resultant cleaning sheet the only thing impregnated will be the Lerner cloth, which is specifically designed to reduce the amount of PSA used (Id.). Therefore, Lerner also teaches away from impregnation of the tacky material into the fiber web at a level greater than 10 g/m² as recited in independent claim 25.

For at least the above-described reasons, independent claim 25 is not taught or otherwise suggested by the cited references, and is, therefore, believed to be allowable. Accordingly, withdrawal of the associated rejections is respectfully requested.

Dependent claims 26-34, which were also rejected under 35 U.S.C. §103(a) as being unpatentable over Tanaka in view of Lerner, each depend from independent claim 25. As described above, independent claim 25 is believed to be allowable over the cited references. Therefore, dependent claims 26-34 are also believed to be allowable

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over the cited references. Accordingly, withdrawal of the rejections of claims 26-34 is respectfully requested.

Moreover, dependent claims 33 and 34 define the tacky material level of impregnation as being "a volume of tacky material per unit area of the fiber web material" and as being "a weight of tack material per unit area of the fiber web material." The Examiner's calculation on page 3 of the Final Office Action bases the thickness of the adhesive itself not upon the area of the fiber web material to which the adhesive is applied as recited in claims 33 and 34. As such, even incorporating the Examiner's calculations, Tanaka further fails to teach the tacky material level as recited in claims 33 and 34. The above described limitation provide additional reasons for allowability of each of claims 26-31 and 33 and 34.

Claims 35, 36, 51, and 52 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tanaka in view of Lerner and further in view of Truong. Each of claims 35, 36, 51, and 52 depend from independent claim 25, which as described above is believed to be allowable over Tanaka and Lerner. Truong fails to remedy the shortcomings of Tanaka and Lerner to collectively teach or suggest the limitations of claim 25. Therefore, each of claims 35, 36, 51, and 52 are believed to be allowable over the cited references, and the Applicant respectfully requests the associated rejections of claims 35, 36, 51, and 52 be withdrawn.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1-36, 47, and 49-52 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-36, 47, and 49-52 are respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

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Any inquiry regarding this Amendment and Response should be directed to either Eloise J. Maki at Telephone No. (651) 737-8459, Facsimile No. (651) 736-3833 or Timothy A. Czaja at Telephone No. (612) 573-2004, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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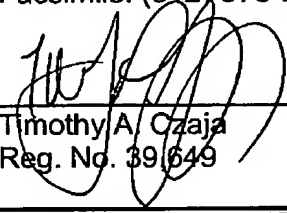
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Reg. No. 39,649**CERTIFICATE UNDER 37 C.F.R. 1.8:**

The undersigned hereby certifies that this paper or papers, as described herein, are being transmitted via telefacsimile to Examiner Matthew D. Matzek, Group Art Unit 1771, at Fax No. (571) 273-8300 on this 9th day of January, 2006.

By: 
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